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# Factors influencing the cellular location of proteolytic enzymes of Bacillus intermedius

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## Abstract

Thiol-dependent serine proteinase and glutamylendopeptidase of Bacillus intermedius 3-19 being prevailing enzymes in the total pool of extracellular proteinases (95%) of this microorganism in catalytic active form were detected on the membrane of the cells. Production of these enzymes was maximum on the medium containing inorganic phosphate and gelatin and decreased 2-4-fold on the medium with glucose and lactate. The level of the activity of extracellular enzymes correlated with that of corresponding membrane-bound proteins. The addition of CoCl2 (2 mM) into the medium caused essential increase in extracellular glutamylendopeptidase activity and promoted the release of membrane-bound enzyme into cultural fluid. Proteolytic activity was detected in cytoplasm also. Proteinases localized in cytoplasm were shown to differ in properties from those secreted.

## Keywords

Glutamylendopeptidase, Location, Membrane-bound enzymes, Thiol-dependent serine proteinase